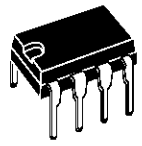
SGS-THOMSON MICROELECTRONICS

TDA7235

1.6W AUDIO AMPLIFIER

- OPERATING VOLTAGE 1.8 TO 24V
- LOW QUIESCENT CURRENT
- HIGH POWER CAPABILITY
- LOW CROSSOVER DISTORTION
- SOFT CLIPPING

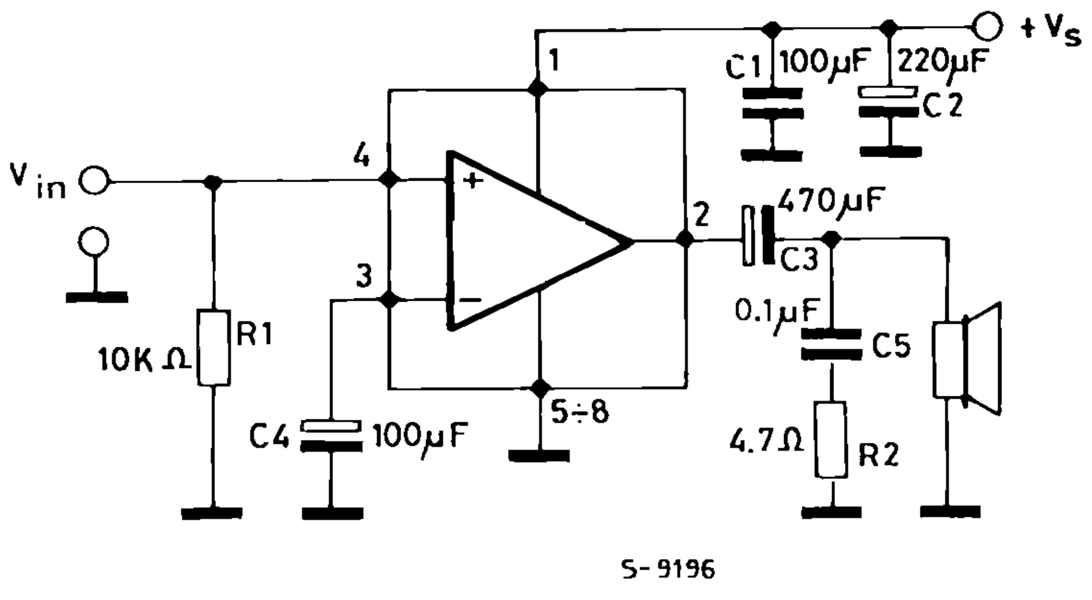


Minidip (4 +4)

DESCRIPTION

The TDA7235 is a monolithic integrated circuit in 4 +4 lead Minidip package, intended for use as class AB power amplifier with wide range of supply voltage in portable radios, cassette recorders and players, TV sets, etc..

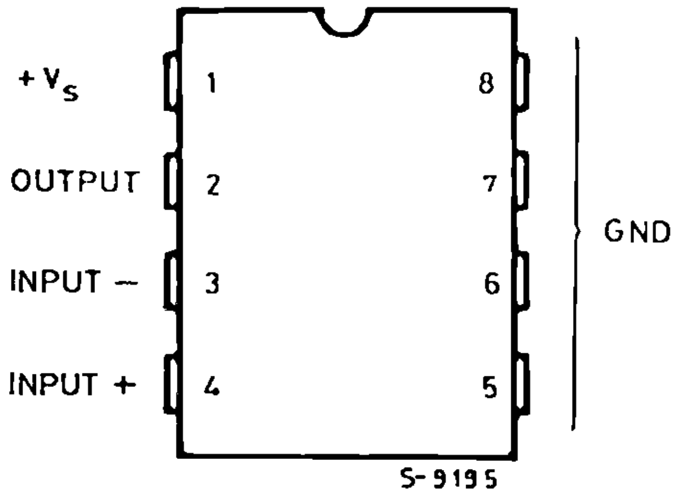
TEST AND APPLICATION CIRCUIT



ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
V_S	Supply Voltage	28	V
I_O	Output Peak Current	1	A
P_{tot}	Total Power Dissipation T_{amb} = 50°C T_{case} = 70°C	1.25 4	W W
T_{stg}, T_j	Storage and Junction Temperature	-40 to150	°C

PIN CONNECTION (Top view)



THERMAL DATA

Symbol	Description	Value	Unit
$R_{th\ j\text{-}amb}$ $R_{th\ j\text{-}case}$	Thermal Resistance Junction-ambient max. Thermal Resistance Junction-pins max.	80 15	°C/W °C/W

ELECTRICAL CHARACTERISTICS (V_S = 12V, T_{amb} = 25°C, f = 1KHz, unless otherwise specified.)

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Unit
V_S	Supply Voltage		1.8		24	V
V_O	Quiescent Output Voltage	V_S = 9V V_S = 12V		4 5.5		V V
I_d	Quiescent Drain Current			4	10	mA
I_b	Input Bias Current					
P_O	Output Power	d = 10% V_S = 9V R_L = 4Ω V_S = 12V R_L = 8Ω V_S = 15V R_L = 16Ω V_S = 20V R_L = 32Ω		 1.6 1.8 1.8 1.6		 W W W W
d	Distortion	P_O = 0.5W R_L = 8Ω		0.3	1	%
G_V	Closed Loop Voltage Gain			38		dB
R_{in}	Input Resistance		100			KΩ
e_N	Total Input Noise	R_S = 10KΩ b = Curve A B = 22Hz to 22KHz		 2 3		 µV µV
SVR	Supply Voltage Rejection	f = 100Hz R_g = 10KΩ	24	33		dB

MINIDIP PACKAGE MECHANICAL DATA

DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A		3.32			0.131	
a1	0.51			0.020		
B	1.15		1.65	0.045		0.065
b	0.356		0.55	0.014		0.022
b1	0.204		0.304	0.008		0.012
D			10.92			0.430
E	7.95		9.75	0.313		0.384
e		2.54			0.100	
e3		7.62			0.300	
e4		7.62			0.300	
F			6.6			0.260
I			5.08			0.200
L	3.18		3.81	0.125		0.150
Z			1.52			0.060

